

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

STEVEN GARRIS, INDIVIDUALLY AND ON	§	
BEHALF OF THE ESTATE OF SUSAN A.	§	
GARRIS, AND BRENDA JOY RODDY,	§	
INDIVIDUALLY AND ON BEHALF OF	§	
THE ESTATE OF SUSAN A. GARRIS,	§	
Plaintiffs	§	
	§	CIVIL ACTION: H-04-4276
vs.	§	
	§	
CONTINENTAL TIRE NORTH AMERICA	§	
INC., A NORTH CAROLINA CORPORATION,	§	
Defendant	§	

ORDER

Plaintiffs' motion to permit testing (Dkt. 44) is granted. Defendant's motion to reconsider (Dkt. 59) is denied. The testing is to be performed subject to the following terms and conditions:

1. Prior to the testing set forth herein, defendant shall be permitted to perform non-destructive air retention testing of the tire made by defendant which did not fail; defendant shall be entitled to possession of the tire for no less than thirty (30) days and no longer than sixty (60) days.
2. After defendant has had an opportunity to perform non-destructive air retention testing of the tire which did not fail, plaintiff shall provide to defendant no less than seven (7) days' advance notice of the time and location of the destructive testing of the tire which failed and the tire which did not fail. Defendant's representatives shall be permitted to be present and to photograph or videotape any sample or the testing of either tire.
3. Plaintiffs may perform the following destructive tests and no others, according to the protocol set forth herein, upon the tire which failed.

A. Microscopic examination of the thickness of the inner liner:

- Step 1: Cut two samples from the tire, each of which is $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch deep; these samples shall not be taken from the location of any radial split in the failed tire; one such sample shall be provided to the defendant;
- Step 2: Mount the remaining sample and polish it, starting with 100X grit sandpaper, and progressing through 200X and 400X to 600X, as necessary to enhance the visual differences between the inner liner and the carcass rubber;
- Step 3: Photograph a cross-section of the sample with a high magnification lens, with a scale on the sample to provide a measurement of the thickness of the inner liner and the carcass.

B. XRF examination of the inner liner, followed by gas chromatograph:

Prior to commencement of the XRF examination, plaintiffs shall provide to defendant the depth of the XRF testing.

- Step 1: Obtain four samples of the inner liner which are 1 inch long by 1 inch wide by 0.05 inches deep; two such samples shall be provided to defendant;
- Step 2: Place the remaining two samples together in the Scanning Electron Microscope (SEM) with the X-Ray Fluorescence (XRF) analyzer;
- Step 3: Analyze samples with the XRF to determine the quantity of chlorine present;
- Step 4: Compare results with samples containing known quantities of chlorobutyl;
- Step 5: Remove samples from the SEM;
- Step 6: Cut portion of one remaining sample to a weight between 0.5 and 3.0 mg.
- Step 7: Place sample in a crucible for the pyrolysis GCMS;

Step 8 Place crucible into the pyrolysis unit, heat sample to 550 degrees C;

Step 9: Run the GCMS program upon the pyrolyzed material.

C FTIR examination of a portion of the failed surface of the tire:

Step 1: Obtain two samples that are $\frac{1}{4}$ inch wide by $\frac{1}{4}$ inch long by $\frac{1}{32}$ inch deep from surface of the tire where it appears that the failure occurred, at a location of poor initial adhesion; one such sample shall provided to the defendant;

Step 2: Place the remaining sample in FTIR, with the exterior surface exposed first;

Step 3: Pass an IR beam through sample, and collect spectra;

Step 4: Turn the sample over and repeat the process;

Step 5: Perform computer library analysis of the spectra which have been collected;

Step 6: Remove two samples that are $\frac{1}{4}$ inch wide by $\frac{1}{4}$ inch long by $\frac{1}{32}$ inch deep from a location of good adhesion (*i.e.* where the rubber tore rather than separated); one such sample shall provided to the defendant;

Step 7: Place the remaining sample in FTIR, with the exterior surface exposed first;

Step 8: Pass an IR beam through sample, and collect spectra;

Step 9: Turn the sample over and repeat the process;

Step 10: Perform computer library analysis of the spectra which have been collected.

D. EDS examination to assess copper sulfide formation:

Step 1: Remove two 1-inch length samples of a wire cord encased in rubber from an area where there is good rubber-to-wire adhesion; one such sample shall be provided to the defendant;

- Step 2: Remove two 1-inch length samples of exposed wire cord (*i.e.* not encased in rubber) from the failure surface of the tire, selecting a cord filament which contains no road abrasion; one such sample shall be provided to the defendant;
- Step 3: Place the remaining sample of the exposed wire cord in the Scanning Electron Microscope (SEM) and make photographs of the area where Energy Dispersive Spectrograph (EDS) will be performed;
- Step 4: Perform an EDS analysis upon the exposed wire cord of the remaining sample;
- Step 5: Place the remaining sample of wire cord which was encased in rubber into a solution of 100% xylene at 60°C to dissolve the rubber from the wire cord;
- Step 6: After dissolution of the rubber from the remaining sample, place it in the Scanning Electron Microscope (SEM) and make photographs of the area where Energy Dispersive Spectrograph (EDS) will be performed;
- Step 7: Perform an EDS analysis upon the wire cord of the remaining sample.
- Step 8: Compare copper sulfide from the remaining sample with the encased wire cord with the copper sulfide present in the remaining sample with the exposed wire cord.

4. Plaintiffs may perform the following destructive tests and no others, according to the protocol set forth herein, upon the tire which did not fail.

A. Microscopic examination of the thickness of the inner liner:

- Step 1: Cut two samples from the tire, each of which is ½ inch long and ¼ inch deep; these samples shall not be taken from the location of any radial split in the failed tire; one such sample shall be provided to the defendant;
- Step 2: Mount the remaining sample and polish it, starting with 100X grit sandpaper, and progressing through 200X and 400X to 600X, as necessary to enhance the visual differences between

the inner liner and the carcass rubber;

Step 3: Photograph a cross-section of the sample with a high magnification lens, with a scale on the sample to provide a measurement of the thickness of the inner liner and the carcass.

B. XRF examination of the inner liner, followed by gas chromatograph:

Prior to commencement of the XRF examination, plaintiffs shall provide to defendant the depth of the XRF testing.

Step 1: Obtain four samples of the inner liner which are 1 inch long by 1 inch wide by 0.05 inches deep; two such samples shall be provided to defendant;

Step 2: Place the remaining two samples together in the Scanning Electron Microscope (SEM) with the X-Ray Fluorescence (XRF) analyzer;

Step 3: Analyze samples with the XRF to determine the quantity of chlorine present;

Step 4: Compare results with samples containing known quantities of chlorobutyl;

Step 5: Remove samples from the SEM;

Step 6: Cut portion of one remaining sample to a weight between 0.5 and 3.0 mg.

Step 7: Place sample in a crucible for the pyrolysis GCMS;

Step 8: Place crucible into the pyrolysis unit, heat sample to 550 degrees C;


Step 9: Run the GCMS program upon the pyrolyzed material.

5. Defendant and plaintiffs shall be permitted to make photographs and videotape of any or all of the foregoing procedures.

6. Plaintiffs' expert reports shall be due fifteen (15) days from the date that the testing

is completed, and the defendant's expert reports shall be due forty-five (45) days thereafter.

Signed at Houston, Texas on August 22, 2005.


Stephen Wm Smith
United States Magistrate Judge